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AO 91 (Rev. 11/11) Criminal Complaint

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	South	hern District			barn or the	iley, Clerk of Cou
United States of America v. KRISHNA MOHAN		) ) ) )	Case No.	H18	3 - 0 0 8	BOM
Defendant(s)						
	CRIM	INAL CO	MPLAINT	Γ		
I, the complaina	ant in this case, state that th	e following is	s true to the be	st of my kno	wledge and belief.	
On or about the date(s)	of1/26/2018		_ in the county	of	Harris	in the
Southern Distr	rict of Texas	, the def	fendant(s) viol	ated:		
Code Section			Offense I	Description		
18 U.S.C. § 1348(1) 7 U.S.C. § 6c(a)(5)(C) a	Commodit and 13(a)(2) Spoofing	ies Fraud				
This criminal co	omplaint is based on these f	Parts:				
	of Federal Bureau of Investi		al Agent Jere	my Hale		
Oce Attached Amdavit C	or rederal bureau or investi	gation, opeci	ai Agent, Jere	iny riale		
<b>☑</b> Continued or	n the attached sheet.			/ /	1/1	
				<b>J</b> omplai	nant's signature	
				FBI, SA	Jeremy Hale	
				Printed	name and title	
Sworn to before me and	signed in my presence.				/ _ /	
Date: 01/26/20	18			OUI hada	3 // Ja	cy
City and state:	Houston, Texas		Fran		e's signature , U.S. Magistrate	Judge

City and state:

H18-0080M

#### AFFIDAVIT IN SUPPORT OF CRIMINAL COMPLAINT

I, Jeremy Hale, being duly sworn, state as follows:

- 1. I am a Special Agent with the Federal Bureau of Investigation (FBI), and have been since October 6, 2017. I began my career with the FBI as an Intelligence Analyst on September 13, 2009. As an Intelligence Analyst, I primarily provided strategic and tactical analysis to a squad which investigated corporate, securities, and commodities fraud schemes. Some of my duties as an Intelligence Analyst included reviewing statements provided by confidential human sources and witnesses, reviewing records obtained from financial institutions and brokerage firms, and reviewing securities trading data. I used this information to publish reports for the benefit of other law enforcement agencies and government regulators. On May 14, 2017, I began the Basic Field Training Course for Special Agents at the FBI Academy. I am currently assigned to the Complex Financial Crimes Squad in the Houston Division of the FBI. I hold a Bachelor's degree from Sam Houston State University in Accounting and a Master's degree from California State University, Sacramento in Accounting.
- 2. I submit this Affidavit in support of a criminal complaint and arrest warrant for KRISHNA MOHAN (hereinafter "MOHAN") for: (i) commodities fraud, in violation of Title 18, United States Code, Section 1348(1); and (ii) spoofing, in violation of Title 7, United States Code, Sections 6c(a)(5)(C) and 13(a)(2).
- 3. For the reasons set forth below, there is probable cause to believe that on or about certain days, beginning in or around November 2013 and continuing

through approximately December 2013 (the "Relevant Period"), MOHAN, in Houston, in the Southern District of Texas, and elsewhere:

- a. knowingly, and with the intent to defraud, executed, and attempted to execute, and willfully participated in, a material scheme and artifice to defraud market participants in connection with commodities for future delivery in the market for E-Mini Dow Jones Industrial Average futures contracts ("E-Mini Dow") on the Chicago Board of Trade ("CBOT") and E-Mini NASDAQ 100 futures contracts ("E-Mini NASDAQ") on the Chicago Mercantile Exchange ("CME"), in violation of Title 18, United States Code, Section 1348(1)2; and
- b. knowingly engaged in trading, practice, and conduct on or subject to the rules of a registered entity, namely the CME and CBOT, that was "spoofing," that is, bidding and offering with the intent, at the time the bid or offer was entered, to cancel the bid or offer before execution, in violation of Title 7, United States Code, Sections 6c(a)(5)(C) and 13(a)(2).3

MOHAN's orders were visible to market participants in this District and MOHAN entered into transactions with counterparties in this District.

The Fraud Enforcement and Recovery Act of 2009 ("FERA"), enacted on May 20, 2009, expanded the anti-fraud provisions of the federal securities fraud statute, 18 U.S.C. § 1348, to apply to fraud involving commodities options and futures. See FERA § 2(e)(1), Pub. L. 111-21, 123 Stat. 1618.

Congress enacted the anti-spoofing provision, 7 U.S.C § 6c(a)(5)(C), as an amendment to the Commodity Exchange Act, as part of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), which became effective on July 16, 2011. See Dodd-Frank Act §§ 747, 754; see also, e.g., Antidisruptive Practices Authority Contained in the Dodd-Frank Wall Street Reform and Consumer Protection Act, 75 Fed. Reg. 67301-01, 67302 (Nov. 2, 2010).

- 4. The information in this Affidavit is based upon (i) my personal participation in this investigation, (ii) my discussions with other law enforcement officers who have assisted in the investigation; (iii) my training and experience, (iv) an analysis of trading data and related information obtained by the FBI in connection with the investigation, and (v) my review of documents and other materials obtained and produced by the CME during its investigation into MOHAN's trading activity, including a recorded interview of MOHAN.
- 5. This Affidavit is being executed as part of an ongoing investigation and is based on my current understanding of the relevant facts based on the above. As the investigation proceeds, new facts may come to light that qualify or contradict prior facts. Because this Affidavit is being submitted for the limited purpose of establishing probable cause for the criminal complaint and arrest warrant, I have not included each and every fact known concerning this investigation. I have set forth only the facts that I believe are necessary to establish that there is probable cause to believe that MOHAN has violated (i) Title 18, United States Code, Section 1348(1); and (ii) Title 7, United States Code, Sections 6c(a)(5)(C) and 13(a)(2).

#### **BACKGROUND**

6. From on or about August 2010 to on or about March 2014, MOHAN was employed as a programmer and trader at a proprietary trading firm located in Chicago, Illinois (hereinafter "Trading Firm A").<sup>4</sup> During the Relevant Period,

The identity of Trading Firm A is known to Your Affiant.

MOHAN worked with two other traders, Trader 1 and Trader 2,<sup>5</sup> on a trading team (hereinafter the "Trading Team") that traded, among other things, futures contracts on the CME and CBOT. When MOHAN joined the Trading Team, he worked to support Trader 1 and Trader 2 by developing automated trading tools and strategies. Subsequently, Trader 1 began training MOHAN to manually trade. During the Relevant Period, MOHAN manually traded futures contracts on behalf of the Trading Team and Trading Firm A.

- 7. The CME Group Inc. ("CME Group") was a commodities marketplace made up of several exchanges, including CME and CBOT, which was based in Chicago, Illinois. At all relevant times, CME and CBOT ware registered entities, operating as Designated Contract Markets. CME and CBOT utilized an electronic trading system called "Globex."
- 8. Globex was a global electronic trading platform operated by the CME Group, which utilized computer servers located in Chicago and Aurora, Illinois. Trading on Globex was conducted electronically using a visible "order book" that displayed quantities of anonymous orders (*i.e.*, offers to sell futures contracts and bids to buy futures contracts) at various price points, or "levels." Globex allowed market participants to trade futures contracts either at the exchange itself or from a location virtually anywhere in the world. Through Globex, markets operated by the CME Group offered trading opportunities in various futures contracts, including E-Mini

The identities of Trader 1 and Trader 2 are known to Your Affiant.

Dow, and E-Mini NASDAQ.

- 9. CME and CBOT, through the Globex system, allowed traders to place orders in the form of "bids" to buy or "offers" to sell a futures contract. An order was "filled" or "executed" when a buyer and seller bought and sold a particular contract. The minimum price increment at which a futures contract could trade on CME and CBOT was called a "tick," and the value of a tick for each contract was set by CME and CBOT. Futures contracts traded on set, periodic expiration cycles (*i.e.*, monthly or quarterly).
- 10. An "iceberg" order was a type of order that traders could place when trading futures contracts on the CME and CBOT. In an iceberg order, the total amount of the order was divided into a certain pre-set quantity that was visible to other market participants, and the remainder of the order that was not visible to other market participants. Whenever the visible portion of the order was filled, the same, pre-set quantity of the remaining, hidden portion automatically became visible; this process repeated until the remainder of the order was either executed or canceled.
- 11. In order to trade futures contracts on the CME and/or CBOT, a trader must utilize a unique identifier called a Tag 50 that is used to connect a particular market participant with a specific order, modification or cancellation placed on the CME. During the Relevant Period, YB01 and YB04 were assigned to MOHAN and YB02 was assigned to Trader 1. During the Relevant Period, the Tag 50s YB01, YB02, and YB04 were used by MOHAN, Trader 1 and Trader 2 at various times to

place orders for futures contracts on the CME and CBOT.6

- 12. A futures contract was a standardized, legally binding agreement that, once executed, obligated the parties to the contract to buy or to sell a specific product or financial instrument in the future. That is, the buyer and seller of a futures contract agreed on a price today for a product or financial instrument to be delivered (by the seller), in exchange for money (to be provided by the buyer), on a future date.
- 13. Futures contracts were traded on markets designated and regulated by the Commodity Futures Trading Commission (the "CFTC"), the federal agency established by federal statute to regulate, among many other things, transactions related to and involving the purchase and sale of futures contracts.
- 14. E-Mini Dow was a stock market index futures contract that represented an agreement to buy or sell the future cash value of the Dow Jones Industrial Average, which was an index of 30 U.S. stocks, at a specified date and traded on the CBOT. E-Mini NASDAQ was a stock market index futures contract that represented an agreement to buy or sell the future cash value of the NASDAQ 100, which was an index of 100 U.S. stocks, at a specified date and traded on the CME.

<sup>&</sup>lt;sup>6</sup> CME and CBOT rules required that traders use only the Tag 50 identifiers assigned to them, and not permit other traders to use them. During the Relevant Period, however, MOHAN, Trader 1, and Trader 2 frequently used the same Tag 50 identifiers—YB01, YB02, and YB04, among others—to place trades on the CME and CBOT. All orders placed using the Tag 50s YB01, YB02, and YB04 are traceable to the Trading Team. After August 2013, utilizing login credentials provided by Trading Firm A, the FBI has been able to trace orders placed using YB01, YB02, and YB04 to either MOHAN, Trader 1, or Trader 2, specifically.

- 15. Based on my training and experience and my work on this investigation,

  I have learned that:
  - a. "Spoofing" was the unlawful practice of bidding or offering with the intent, at the time the bid or offer is placed, to cancel the bid or offer before it is executed. Spoofing can be used as a method to engage in market manipulation.
  - b. One of the many ways that spoofing can be used to manipulate the market for futures contracts is:
    - i. A trader places one or more large orders either to buy or to sell futures contracts on one side of the market, which the trader intends, at the time the orders are placed, to cancel before they are executed (the "Spoof Orders"). To drive prices up, the trader places Spoof Orders to buy, which create the false impression in the market of increased demand. To drive prices down, the trader places Spoof Orders to sell, which create the false impression in the market of increased supply.
    - ii. Near the same time the Spoof Orders are placed, the same trader also places genuine orders, in a much lower quantity, on the opposite side of the market, which the trader, by contrast, intends to execute (the "Primary Orders").
    - iii. By placing the Spoof Orders, the trader intends to create a market imbalance, injecting false and misleading information (i.e.,

orders the trader does not intend to execute) into the market to create the false impression of increased supply or demand.

- iv. This false and misleading information may, and often does, cause other market participants to buy and to sell futures contracts at quantities, at prices, and at times, that they otherwise would not because, among other things, market participants react to the apparent (although artificial) increase in supply or demand that might, and often does, affect futures contract prices.
- v. When the trader who enters Spoof Orders induces enough market participants to buy or to sell futures contracts at a price that they otherwise would not have traded, the price of a given futures contract may change, resulting in the creation of a new, but artificially inflated or deflated, price. When the new artificial price has changed enough, the trader's Primary Orders trade at quantities, at prices, and at times that otherwise would not have been available, but for the Spoof Orders.

#### **SUMMARY OF THE INVESTIGATION**

## Overview of the Scheme to Defraud and Spoofing Practice

- 16. The FBI has been investigating the existence of materially deceptive trading activity in the markets for E-Mini Dow and E-Mini NASDAQ futures contracts by, among others, MOHAN and the Trading Team.
  - 17. Based on information obtained by the FBI during the investigation,

which is discussed in more detail below, on certain days in the Relevant Period, in Houston, in the Southern District of Texas, and elsewhere, MOHAN (i) devised, executed, and participated in a scheme to defraud other market participants (the "Scheme to Defraud"), and (ii) engaged in the practice of spoofing (the "Spoofing Practice"), all in connection with E-Mini Dow and E-Mini NASDAQ futures contracts, all of which were financial products traded on the CBOT and CME.

- 18. Specifically, based on documents obtained by the FBI and an analysis of trade and order data performed during the investigation, Your Affiant has learned that, as part of and furtherance of the Scheme to Defraud and Spoofing Practice:
- a. MOHAN utilized a strategy to place one or more large orders<sup>7</sup> for E-Mini Dow and E-Mini NASDAQ futures contracts on one side of the market which, at the time MOHAN placed the orders, he intended to cancel before execution. The purpose of these Spoof Orders was to trick other market participants by injecting materially misleading information into the market that indicated increased supply or demand, but was not genuine because MOHAN never intended to execute the bids or offers contained in these Spoof Orders. This, in turn, was intended to induce and often did induce market participants to buy or to sell E-Mini Dow and E-Mini NASDAQ futures contracts at prices, at quantities, and at times that they would not have otherwise. While the Spoof Orders were pending, and in those instances when

To accomplish this, MOHAN used an automated function to split one large order into multiple, smaller orders (that, in total, equaled the amount of the large order), which were submitted simultaneously to the CBOT or CME. For purposes of the analysis contained in this complaint, I have aggregated these smaller orders.

the Spoof Orders caused or assisted in causing price movements, MOHAN often executed Primary Orders of smaller visible quantities on the opposite side of the market in an attempt to profit, mitigate losses, or otherwise benefit from the artificial movement in price that they Spoof Orders had caused or assisted in causing.

- b. MOHAN refused to answer questions regarding his trading activity, strategy, and intent, when confronted about his conduct by the CME Group during its investigation into his trading activity.
- c. Prior to the Relevant Period, MOHAN had demonstrated an understanding of spoofing techniques by producing a document demonstrating an automated strategy to place Spoof Orders that were expressly described as "bluff" orders not meant to be traded; and the Trading Team tested the implementation of a trading strategy which closely matches this automated strategy.

# MOHAN Engaged in the Scheme To Defraud and Spoofing Practice in the E-Mini Dow and E-Mini NASDAQ Futures Contracts Markets

19. Your Affiant has reviewed summaries of an analysis of MOHAN's trading activity in the E-Mini Dow and E-Mini NASDAQ futures contracts markets for the "Relevant Period". On certain days during the Relevant Period, MOHAN sought to enrich himself through a scheme to defraud and spoofing practices in connection with the purchase and sale of E-Mini Dow and E-Mini NASDAQ futures contracts on the CBOT and CME, respectively. By placing a large visible order for E-Mini Dow and E-Mini NASDAQ futures contracts at certain price levels with the intent, at the time the order was placed, to cancel the order before execution, MOHAN created the false appearance of substantial supply or demand in order to fraudulently

induce other market participants to react to their deceptive market information.

### Spoofing Practice in the E-Mini Dow Futures Contract Market

- 20. Based on the analysis of MOHAN's trading activity in the E-Mini Dow futures contract market, MOHAN implemented, at various times, the following pattern of order and trade activity during the Relevant Period. There is probable cause to believe that the pattern articulated below is materially deceptive and constitutes spoofing:
  - a. First, MOHAN placed one or more Primary Orders to buy or to sell. These orders were typically icebergs with only one or two lots visible to the market, placed at the best bid price (in the case of a Primary Order to buy) or offer price (in the case of a Primary Order to sell) at which the E-Mini Dow was trading;
  - b. Second, MOHAN placed one or more large visible orders on the opposite side of the market from the Primary Order, within two price levels of the prevailing price (the "Opposite Orders"). These orders increased the number of working lots at the best and second best prevailing bid or offer price in the order book by an average of 75 lots, when compared to the number of working lots at the placement of the Primary Order, and comprised, on average, approximately 75% of the total number of orders in the entire market at the levels at which the Opposite Orders were placed; and
  - c. Third, at least one lot of MOHAN's Primary Order was filled approximately 95% of the time within 2 seconds after the placement of an

### Opposite Order; and

- d. Fourth, after filling at least part of his Primary Orders, MOHAN would cancel the Opposite Orders within 5 seconds.
- 21. When employing the trading pattern described in paragraph 20 above, approximately 53% of the Primary Order lots were executed, while only approximately 0.2% of the Opposite Order lots were executed.
- 22. MOHAN employed the pattern of trading activity summarized above in paragraphs 20 and 21 in the E-Mini Dow futures contracts market hundreds of times, placing thousands of Opposite Orders, during the Relevant Period.

### Spoofing Practice in E-Mini NASDAQ Futures Contracts Market

- 23. Based on an analysis of MOHAN's trading activity in the E-Mini NASDAQ futures contract market, MOHAN implemented, at various times, the following pattern of order and trade during the Relevant Period. There is probable cause to believe that the pattern articulated below is materially deceptive and constitutes spoofing:
  - a. First, MOHAN placed one or more Primary Orders to buy or to sell. These orders were typically icebergs with only one or two lots visible to the market, placed at the best bid price (in the case of Primary Orders to buy) or offer price (in the case of Primary Orders to sell) at which the E-Mini NASDAQ was trading;
  - b. Second, MOHAN placed one or more large visible orders on the opposite side of the market from the Primary Order, within two price levels of

the prevailing price (the "Opposite Orders"). These orders increased the number of working lots at the best and second best prevailing bid or offer price in the order book by an average of 71 lots, when compared to the number of working lots at the placement of the Primary Order, and comprised, on average, approximately 72% of the total number of orders in the entire market at the levels at which the Opposite Orders were placed;

- c. Third, at least one lot of MOHAN's Primary Order was filled approximately 94% of the time within 2 seconds after the placement of an Opposite Order; and
- d. Fourth, after filling at least part of his Primary Orders, MOHAN would cancel the Opposite Orders within 5 seconds.
- 24. When employing this trading pattern, approximately 60% of the Primary Order lots were executed, while only approximately 0.1% of the Opposite Order lots were executed.
- 25. MOHAN employed the pattern of trading activity summarized above in paragraph 23 in the E-Mini NASDAQ futures contracts market over a thousand times, placing tens of thousands of Opposite Orders during the Relevant Period.

### December 2, 2013 Example of MOHAN's Spoofing Practice in the E-Mini NASDAQ

26. As one example of MOHAN's execution of the spoofing practice in a manner consistent with the pattern summarized above in paragraphs 23 above, MOHAN engaged in the following order and trade activity in the E-Mini NASDAQ futures contract market:

- a. On December 2, 2013, at approximately 3:01:50.862,8 MOHAN placed an iceberg Primary Order to buy 40 E-Mini NASDAQ futures contracts, with only 1 order visible to the market, at the price of \$3490.75, which was the best prevailing bid price at that point in time.
- b. Second, at approximately 3:02:00.910, MOHAN placed an Opposite Order, which was not an iceberg, to sell 40 E-Mini NASDAQ futures contracts at the price of \$3,491.25, which was the second best prevailing offer price at that point in time. At approximately 3:02:01.327, MOHAN placed a second Opposite Order to sell 40 E-Mini NASDAQ futures contracts at the same price, \$3,491.25. Together, MOHAN's two Opposite Orders constituted approximately 74% of the order book to sell E-Mini NASDAQ futures contracts at that price level.
- c. Third, approximately 0.952 seconds after placing the second Opposite Order, MOHAN's iceberg Primary Order to buy began to be filled at approximately 3:02:02.279, and was completely filled at approximately 3:02:02.284, giving MOHAN an overall long position of 40 lots in the E-Mini NASDAQ market.
- d. Fourth, less than one second after MOHAN's iceberg Primary Order was completely filled, at approximately 3:02:02.736, MOHAN cancelled his Opposite Orders of two 40 lots to sell without any of the Opposite Orders

<sup>&</sup>lt;sup>8</sup> All times in this Affidavit are approximate and are in Central Time, based on a 24-hour clock.

being filled. The Opposite Orders to sell had been active in the market for approximately 1.8 and 1.4 seconds, respectively, before MOHAN cancelled them.

- 27. Approximately two seconds after the conduct summarized in paragraph 26 above occurred, MOHAN engaged in the following order and trade activity in the E-Mini NASDAQ futures contract market designed to profitably sell his existing 40 lot long E-Mini NASDAQ position:
  - a. At approximately 03:02:04.671, MOHAN placed an iceberg Primary Order to sell 40 E-Mini NASDAQ futures contracts, with only 1 order visible to the market, at \$3,491.00, which was at the best prevailing offer price at that point in time.
  - b. Second, at approximately 3:02:11.104, MOHAN placed an Opposite Order, which was not an iceberg, to buy 40 E-Mini NASDAQ futures contracts at the price of \$3,490.75, which was the best prevailing bid price at that point in time and constituted 69% of the order book to buy E-Mini NASDAQ futures contracts at that price level.
  - c. Third, approximately 0.001 seconds after placing the Opposite Order, MOHAN's iceberg Primary Order to sell began to be filled at approximately 3:02:11.105, and was completely filled at approximately 3:02:11.110, giving MOHAN a one tick, "round-trip" gain over the course of approximately 20 seconds in the E-Mini NASDAQ market.
    - d. Fourth, less than one second after MOHAN's iceberg Primary

Order was completely filled, at approximately 3:02:11.879, MOHAN cancelled his Opposite Order of 40 lots to buy without any of the Opposite Order being filled. The Opposite Order to buy had been active in the market for approximately 0.775 seconds before MOHAN cancelled it.

#### December 9, 2013 Example of MOHAN's Spoofing Practice in the E-Mini NASDAQ

- 28. As another example of MOHAN's pattern of trading activity that is summarized above in paragraph 23, MOHAN engaged in the following order and trade activity in the E-Mini NASDAQ futures contract market:
  - a. On December 9, 2013, at approximately 05:27:41.553 MOHAN placed an iceberg Primary Order to buy 40 E-Mini NASDAQ futures contracts, with only 1 order visible to the market, at the price of \$3,509.50, which was at the best prevailing bid price at that point in time.
  - b. Second, at approximately 5:27:42.713, MOHAN placed an Opposite Order, which was not an iceberg, to sell 40 E-Mini NASDAQ futures contracts at the price of \$3,510.00, which was at the second best prevailing offer price at that point in time and constituted approximately 80% of the order book at that price level. At approximately 5:27:43.225, MOHAN placed a second Opposite Order to sell 40 E-Mini NASDAQ futures at \$3,509.75, which was the best prevailing offer price at that point in time and constituted approximately 87% of the order book at that price level.
  - c. Third, approximately 3 milliseconds after placing the second Opposite Order, MOHAN's iceberg Primary Order to buy began to be filled at

approximately 5:27:43.228, with MOHAN executing 17 of the 40 lots.

d. Fourth, less than 1 second after MOHAN's iceberg Primary Order was partially filled with 17 lots, MOHAN cancelled his Opposite Order at the best prevailing price of 40 lots to sell without any of this Opposite Order being filled and less than 2 seconds later, MOHAN cancelled his remaining Opposite Order at the second best prevailing price of 40 lots to sell without any of this Opposite Order being filled. The Opposite Order to sell at the best prevailing price had been active in the market for approximately 1 second and the Opposite Order to sell at the second best prevailing price had been active in the market for less than 3 seconds before MOHAN cancelled them.

#### November 27, 2013 Example of MOHAN's Spoofing Practice in the E-Mini Dow

- 29. As another example of MOHAN's pattern of trading activity that is summarized above in paragraphs 20, MOHAN engaged in the following order and trade activity in the E-Mini Dow futures contract market:
- a. On November 27, 2013, at approximately 8:06:34.949, MOHAN placed an iceberg Primary Order to sell 40 E-Mini Dow futures contracts, with only 1 order visible to the market, at the price of \$16,083, which was at the second best prevailing offer price at that point in time.
- b. Second, at approximately 8:06:48.557, MOHAN placed an Opposite Order, which was not an iceberg, to buy 40 E-Mini Dow futures contracts at the price of \$16,081, which was at the second best prevailing bid price at that point in time. This MOHAN Opposite Order constituted approximately 74% of the order

book at that price level. Next, between approximately 8:06:49.591 and 8:06:49.592, MOHAN placed another Opposite Order, which was not an iceberg, to buy 40 E-Mini Dow futures contracts at a price of \$16,082, which was the best prevailing bid price at that point in time. This MOHAN Opposite Order constituted approximately 83% of the order book at that price level.

- c. Third, approximately 1 millisecond after placing the second Opposite Order, MOHAN's iceberg Primary Order to sell began to be filled at approximately 8:06:49.592, and by approximately 8:06:50.288, 27 lots of the iceberg Primary Order were filled.
- d. Approximately 207 milliseconds after the last fill of the Primary Order, at 8:06:50.495, MOHAN cancelled his Opposite Order of 40 lots to buy at the best prevailing bid price without any of this Opposite Order being filled. This Opposite Order to buy had been active in the market for approximately 1 second before MOHAN cancelled it. At approximately 8:06:52.117, MOHAN cancelled his Opposite Order of 40 lots to buy at the second best prevailing bid price without any of this Opposite Order being filled. This Opposite Order to buy had been active in the market for approximately 3.7 seconds before MOHAN cancelled it.
- e. Finally, at approximately 8:06:56.528, MOHAN canceled his iceberg Primary Order, of which 13 lots remained unfilled.
- 30. A market participant located in this District relied on the Opposite Orders described in paragraph 29, above, in executing a trade with MOHAN's Primary Order.

# MOHAN Refuses to Answer Questions during a CME Interview about his Trading Activity

- 31. In or around 2014, the CME began to investigate, among other things, MOHAN's E-Mini Dow and E-Mini NASDAQ trading activity. As part of its investigation, the CME analyzed MOHAN's trading activity in these markets and conducted a recorded interview of MOHAN on December 10, 2014.
- 32. During the December 10, 2014 interview, CME investigators questioned MOHAN for over an hour about his trading activity generally. MOHAN answered numerous general questions about strategy and his role on the Trading Team and at Trading Firm A. However, when questioned about his specific orders, cancellations and transactions, including his intent when placing certain orders, MOHAN refused to answer these questions.
- 33. Specifically, Mohan was shown excerpts of his E-Mini Dow and E-Mini NASDAQ trading activity from December 4, 2013 (E-Mini Dow) and December 9, 2013 (E-Mini NASDAQ). When asked about the specific orders, cancellations and transactions in these trading excerpts, MOHAN refused to answer each question. MOHAN was asked specifically whether he intended to execute the orders outlined in paragraph 28 above and responded, in sum and substance, that he would "prefer not to answer that question."

# MOHAN Produced a Document Describing an Automated Strategy to Place Spoof Orders

34. In approximately July 2016, MOHAN produced to the CFTC seven versions of an undated Microsoft Word document with the filename,

"smartorders.docx" (the "SmartOrders Document"). The FBI has obtained electronic copies of the materials that MOHAN produced to the CFTC. Based on a review of the metadata associated with the SmartOrders Documents, Your Affiant has learned that each document has a metadata field entitled, "ED Source," with one version containing the entry, "Krishna Mohan Google Drive\Active Files", and the remaining six versions containing the entry, "Krishna Mohan Google Drive\Revision Files".

35. Five of the seven versions of MOHAN's SmartOrders Document that Your Affiant has reviewed contain an entry for "4 Smart Stuffing book.(order cancel replace)" (hereinafter, "Smart Stuffing Function") which reads in full (emphasis added in bold)<sup>10</sup>:

4 Smart Stuffing book.(order cancel replace)

allow trader to control which side they want to show bluff. trader decide each level how many contracts should be put in. and contracts should be break into multiple smaller contracts in random size which overall average order size match with the entire books average size. we can also add 30,40,50 contracts into the book to mimic market makers. never throw easily detected size like 100/200/250 or 60s like 9ner.

Only put bluffing orders in when book exceed 400 contract. and flipped for more than 500 ms.

every 10 second add 1 lot in the existing order and minus 1 lot to make sure every order of ours will be at the back of the queue. make a butt called (refresh bluffing)

All those orders are not mean to be traded. if for any reason some one flush big size in and bluff order get filled, order will be sent out

<sup>9</sup> MOHAN's statements from his December 10, 2104 CME Interview that are quoted in this Complaint are based on a transcription of that recorded interview, which the Affiant has reviewed. [Ex. 12 (Transcript of CME Interview)]

All typographical errors are original to the document that is quoted.

immediately to the price it get filled try to scratch out.

- 36. Based on my training and experience, Your Affiant believes the Smart Stuffing Function outlines a trading program that would allow a trader to place an order that he did not intend to execute and whose quantity was modified to mitigate the risk that this "bluff" order would be traded. The Smart Stuffing Function itself explicitly notes that the "bluff" orders "are not mean [sic] to be traded. In addition, the Smart Stuffing Function states that "every 10 second add 1 lot in the existing order and minus 1 lot to make sure every order of ours will be at the back of the queue." Based on my training and experience, I know that certain futures contracts trade on a First-In, First-Out ("FIFO") basis, and that orders whose quantities are modified move to the back of the order queue.
- 37. Trading activity was analyzed to identify patterns consistent with the Smart Stuffing Function described in paragraphs 36 and 37 above—specifically, orders whose quantity is modified by adding and subtracting one lot. Based on a review of that analysis, Your Affiant has learned that it identified certain trading activity by the Tag 50, "YB04," which was used by the Trading Team to trade E-Mini S&P 500 futures contracts on the CME. A review of the analysis shows that between August 6 and August 8, 2012 there were approximately 33 instances in which an order's size was modified alternatively by increasing the size one lot and then decreasing the size one lot. Based on my review of this analysis, and my training and experience, this trading pattern is consistent with the description of the Smart Stuffing Function, which would "add 1 lot in the existing order and minus 1 lot to make sure every order of ours will be at the back of the queue."

#### **CONCLUSION**

38. Based on the foregoing, there is probable cause to believe that MOHAN participated and engaged in: (i) commodities fraud, in violation of Title 18, United States Code, Section 1348(1); and (ii) spoofing, in violation of Title 7, United States Code, Sections 6c(a)(5)(C) and 13(a)(2).

JEREMY/HALE

Special Agent

Federal Bureau of Investigation

Signed and sworn to before me this day of January, 2018, in Houston, Texas and I find public will.

HON. FRANCES H. STACY

United States Magistrate Judge